

12. Lampinen, T. M., et al.: HIV seropositivity in community-recruited and drug treatment samples of injecting drug users. *AIDS* 6: 123–126 (1992).
13. Publicly funded HIV counseling and testing—United States, 1990. *MMWR Morb Mortal Wkly Rep* 40: 666–675, Oct. 4, 1991.
14. Drug use and sexual behaviors among sex partners of injecting-drug users—United States, 1988–1990. *MWWR Morb Mortal Wkly Rep* 40: 855–860, Dec. 13, 1991.
15. Battjes, R. J., Pickens, R. W., and Amsel, Z.: HIV infection and AIDS risk behaviors among intravenous drug users entering methadone treatment in selected cities. *J Acquir Immune Defic Syndr* 4: 1148–1154 (1991).
16. Nelson, K. E., et al.: Sexually transmitted diseases in a population of intravenous drug users: association with seropositivity to the human immunodeficiency virus (HIV). *J Infect Dis* 164: 457–463 (1991).
17. Leviton, L. C.: Theoretical foundations of AIDS-prevention programs. In *Preventing AIDS: the design of effective programs*, edited by R.O. Valdiserri. Rutgers University Press, New Brunswick, NJ, 1989, pp. 42–90.
18. Calsyn, D. A., et al.: Ineffectiveness of AIDS education and HIV antibody testing in reducing high-risk behaviors among injection drug users. *Am J Public Health* 82: 573–575 (1992).
19. Valdiserri, R. O., et al.: Structuring HIV prevention service delivery systems on the basis of social science theory. *J Community Health* 17: 259–269 (1992).
20. Public Health Service: Healthy people 2000: national health promotion and disease prevention objectives. DHHS Publication No. (PHS) 91-50212. Office of the Assistant Secretary for Health, Office of Disease Prevention and Health Promotion. U.S. Government Printing Office, Washington, DC, 1990.

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## Directions for AIDS Education for Hispanic Women Based on Analyses of Survey Findings

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### Synopsis .....

*In 1988 and again in 1990, the National Center for Health Statistics conducted a survey of the AIDS related knowledge and beliefs of Hispanic and non-Hispanic adults in the United States. A*

*survey of Los Angeles Hispanic women was conducted in 1990, using the 1988 survey instrument. This study is an examination of the trends in knowledge and beliefs by comparing those of Hispanic Los Angeles women in 1990 to Hispanic and non-Hispanic female respondents in the 1988 national sample. Despite intense public health, local community, and media efforts to educate the public about AIDS, the women in the Los Angeles sample did not show appreciable differences in knowledge and beliefs compared with the 1988 national sample, and in many areas they were less knowledgeable. These results may be related to differing education and acculturation levels as well as possible differences in ethnicity. Hispanic groups will need focused prevention efforts which take into account specific areas of knowledge, educational level of information, adherence to traditional beliefs and practices, and ethnicity of the targeted community.*

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IN 1988 THE NATIONAL CENTER for Health Statistics conducted a survey of the AIDS related knowledge, attitudes, and behaviors of adults in the United States (1), and a similar survey was conducted in 1990 (2). The AIDS Knowledge and Awareness Survey was a supplement to the National Health Interview Survey (NHIS). AIDS knowledge and awareness of Hispanic and non-Hispanic populations were compared. Findings of

the NHIS have been supported by the findings of many other investigators in more geographically limited surveys.

Hispanics' AIDS knowledge and awareness regarding six areas can be compared with findings for non-Hispanics.

1. In all studies, general knowledge of the virus, immunity, and the major transmission routes of

AIDS did not differ between Hispanics and non-Hispanics (2-9).

2. All investigators documented that specific misperceptions about casual transmission of the human immunodeficiency virus (HIV) are more prevalent among Hispanics than non-Hispanics (4-8,10).

3. In several studies, Hispanics assessed their risk of HIV infection as being greater than non-Hispanics (4,6,7,11), although NHIS findings did not confirm this (1,2).

4. Fewer Hispanics than non-Hispanics have heard of the HIV antibody test; however, more Hispanics have had their blood tested for HIV (1,2). Hispanics are less likely to donate blood than non-Hispanics partly because of confusion about donation and transfusion (8-10).

5. Hispanics are less likely to be aware of condoms as a means of lowering risk and less likely to believe in the effectiveness of condoms than non-Hispanics (1,2,6-8). Similarly, they are less likely to believe in the effectiveness of monogamy (1).

6. Finally, skepticism about government information and efforts varies among Hispanic respondents. In the NHIS, the majority of Hispanics believed information about AIDS provided by the government; in a San Francisco survey, government officials were not seen as credible (1,2,12). In a study in Illinois, Hispanic respondents did not think that government efforts were great enough in AIDS care, research, and education (7).

Knowledge and practices among Hispanics surveyed in the NHIS differed in several areas by ethnicity (1,2). Respondents of Mexican ancestry were more likely than those of other Hispanic origins to believe in casual transmission and to be skeptical of government information about AIDS. They were less likely to have heard of the HIV antibody test and to believe in the effectiveness of condoms and monogamy (1,2,13).

Since the 1988 survey, many attempts have been made to educate the American public about HIV. Most notably the national AIDS mailer, "Understanding AIDS," was sent to every U.S. household by the Centers for Disease Control (CDC). In addition, there were television and radio public service announcements by the "America Responds to AIDS" campaign. Finally, a multitude of State and community-based education programs, services, and media attention have been directed toward AIDS education. Hispanic populations and Hispanic community-based organizations have been

among the groups targeted. The expectation has been that these efforts would result in improved knowledge, attitudes, and practices.

A survey using the 1988 NHIS instrument was conducted among 442 low-income Hispanic women in Los Angeles 2 years after the national AIDS mailer campaign. The purpose of this study is to (a) describe the AIDS related knowledge and practices of the Los Angeles sample in each of the six areas discussed previously and (b) examine trends in the data between the women in the Los Angeles sample and the women in the 1988 NHIS study.

## Methods

The 1990 Los Angeles study used a descriptive longitudinal panel, a convenience sample of low-income Hispanic women recruited from the waiting rooms of the Nutrition Program for Women, Infants and Children (WIC) between 1990 and 1991. In the national surveys, random samples were used. The study designs and the NHIS questionnaires were described by Dawson and Hardy for the 1988 survey and by Biddlecom and Hardy for the 1990 one (1,2). In the Los Angeles study, data were gathered on 42 AIDS knowledge, attitudes, and practice items taken from the 1988 NHIS (1). In addition to the NHIS items, Los Angeles subjects completed a 12-item Acculturation Scale developed by Marin and colleagues (13).

After obtaining informed consent, subjects in Los Angeles were interviewed personally by Spanish-speaking nurse research assistants who received training and retraining throughout the data collection period of 11 months. Data were gathered on AIDS knowledge and practices prior to an educational intervention, and we report these initial data. In the national surveys, data were collected by written responses to questionnaires.

Data from the Los Angeles women were compared with the national sample by constructing two-by-two contingency tables and examining associations by chi-square analysis. Relationships were examined between group membership and dichotomized responses to individual items measuring each of the six areas described previously. The groups compared were the 1990 sample of Los Angeles Hispanic women and the 1988 national sample of Hispanic and non-Hispanic women. Statistical comparisons were not made with the 1990 national sample because many questions were revised for the 1990 survey. However, responses are reported for this group in table 2 along with the other groups whenever they were available. Because of several

Table 1. Demographic characteristics of respondents in three surveys of AIDS related knowledge and beliefs

Characteristics	1990 Los Angeles Hispanic women (N = 422)		1988 national sample				1990 national sample, Hispanics (N = 2,501)	
			Hispanics (N = 1,102)		Non-Hispanics (N = 19,963)			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Age:								
18–29 years .....	251	59	369	33	4,544	23	851	34
30–49 years .....	155	37	501	45	7,575	38	1,138	46
50 years and older .....	16	4	232	22	7,844	39	512	20
Sex:								
Men.....	0	...	462	42	8,411	42	1,026	41
Women.....	422	100	640	58	11,522	58	1,475	59
Education:								
Less than 12 years.....	284	70	473	44	4,405	22	1,101	44
12 years.....	57	14	335	31	7,627	39	751	30
More than 12 years.....	63	16	277	25	7,721	39	640	26
Hispanic origin:								
Mexico .....	171	41	533	48	...	...	1,375	55
Puerto Rico.....	43	3	...	...	...	...	326	13
Other Hispanic.....	208	49	569	52	...	...	789	32

Table 2. Comparison of AIDS related knowledge and beliefs among Los Angeles Hispanic women in 1990 and women in two national surveys (percentages)

Survey questions and responses	1990 Los Angeles Hispanic women (N = 422)	1988 national sample		
		Hispanics (N = 640)	Non-Hispanics (N = 11,522)	1990 national sample, Hispanics (N = 1,475)
Answered "true" to—				
AIDS is caused by a virus .....	<sup>1</sup> 88	<sup>1</sup> 74	81	84
Teenagers cannot get AIDS .....	<sup>1</sup> 56	<sup>1</sup> 12	3	...
Vaccine for AIDS available .....	<sup>1</sup> 82	<sup>1</sup> 27	17	37
There is no cure for AIDS .....	<sup>1</sup> 60	<sup>1</sup> 88	92	86
PWA looks healthy .....	58	<sup>1</sup> 59	<sup>1</sup> 77	...
Answered "true," can get AIDS from—				
Living near a hospital .....	42	<sup>1</sup> 31	<sup>1</sup> 11	...
Working with PWA .....	43	<sup>1</sup> 42	<sup>1</sup> 20	18
Shaking hands, kissing, touching .....	37	<sup>1</sup> 37	<sup>1</sup> 51	...
Public toilets .....	60	<sup>1</sup> 53	<sup>1</sup> 30	37
Perceived a high or medium risk of—				
Having HIV virus .....	<sup>1</sup> 20	<sup>1</sup> 2	2	3
Getting AIDS virus .....	<sup>1</sup> 22	<sup>1</sup> 3	2	3
Source of risk:				
Blood transfusion .....	<sup>1</sup> 27	<sup>1</sup> 1	9	...
Sexual contact .....	<sup>1</sup> 53	<sup>1</sup> 3	13	...
Answered "yes" to—				
Counseled about test .....	<sup>1</sup> 23	<sup>1</sup> 5	3	...
Blood was tested .....	<sup>1</sup> 34	<sup>1</sup> 18	4	...
Of those tested, was test—				
Voluntarily sought? .....	29	<sup>1</sup> 31	<sup>1</sup> 50	23
Required? .....	71	<sup>1</sup> 69	<sup>1</sup> 48	7
Believed effective prevention method—				
Condom .....	85	77	82	79
Spermicidal jelly .....	16	13	16	...
Diaphragm .....	54	<sup>1</sup> 41	<sup>1</sup> 15	...
Vasectomy .....	30	<sup>1</sup> 27	<sup>1</sup> 3	...
Monogamy, negative partner .....	76	<sup>1</sup> 78	<sup>1</sup> 91	...
Answered "yes" to—				
Is blood supply safe .....	33	29	42	33
Believe government officials .....	70	70	65	...
Would take part in HIV testing .....	66	65	70	...

<sup>1</sup> Chi-square analysis of these relationships were significant at  $P \leq .05$ ,  $df = 1$ .  
NOTE: PWA = persons with AIDS. HIV = human immunodeficiency virus.

differences in sample characteristics and selection, interviewing techniques, and purposes between the Los Angeles and national surveys, results of the chi-square tests must be interpreted cautiously as trends in the data and not as statistically significant.

Additional analyses were conducted on the responses of the Los Angeles sample to describe more fully their AIDS knowledge and beliefs according to age and education levels using one-way analysis of variance. Three dependent variables were examined: knowledge of AIDS (the sum of correct responses to 12 knowledge items), erroneous beliefs (the sum of correct responses to 11 beliefs about transmission items), and prevention (the sum of correct responses to five methods of preventing AIDS). Internal consistency reliability coefficients for these three scores were calculated. The alpha coefficients were knowledge, 0.69; beliefs, 0.90; and prevention, 0.56. In addition, *t*-tests were used to examine the same three scores by level of acculturation. The Acculturation Scale had an alpha coefficient of 0.92 for this sample. A median (1.5) score split was done to define low acculturation and high acculturation subgroups.

## Results

Key sociodemographic characteristics of four groups of respondents are shown in table 1. Larger proportions of all Hispanic groups were younger and less educated than the non-Hispanic group. However, the Los Angeles sample was noticeably younger (59 percent under 29 years) and less educated (70 percent with less than 12 years of schooling). A smaller percentage of the Los Angeles subjects were from Mexico (41 percent compared with 48 percent in the 1988 sample and 55 percent in 1990). In the Los Angeles sample, 49 percent of Hispanics were from Central and South America and only 3 percent from Cuba or Puerto Rico. An ethnic breakdown of Hispanics other than as "Mexican" and "non-Mexican" in the 1988 national survey was not provided. In the national 1990 survey, the non-Mexican Hispanic sample consisted of 13 percent Puerto Rican origin respondents and 32 percent other Hispanic origin respondents.

About 46 percent of the Los Angeles cohort of 422 women were married, 40 percent had never been married, and the remainder were separated, divorced, or widowed. All but seven subjects reported their income, with 86 percent reporting income below \$1,000 per month. Marital status and

*'Both the 1988 national and the 1990 Los Angeles Hispanic women were more likely than non-Hispanic women to hold erroneous beliefs about getting AIDS . . .'*

income were not addressed in the national sample report, but it is clear that the Los Angeles sample was composed primarily of those living at or below the poverty level.

Information on level of acculturation was not available on the national sample, but the level was found to be quite low for the Los Angeles sample, with a mean score of 1.18 (SD = 0.69) on a scale ranging from 1 to 5. Slightly more than 89 percent of the Los Angeles sample responded to the survey interview in Spanish.

**General knowledge of AIDS.** The Los Angeles Hispanic sample was more likely to agree (88 percent) that AIDS was caused by a virus than were either of the national samples (74 percent and 81 percent) of 2 years earlier (table 2). However on three of the other four items, a much larger proportion of the Los Angeles sample had incorrect knowledge than the national sample: teenager's susceptibility to AIDS, (56 percent versus 12 percent and 3 percent), availability of an AIDS vaccine (82 percent versus 27 percent and 17 percent), and lack of a cure for AIDS (60 percent versus 88 percent and 92 percent). Non-Hispanic women in 1988 (77 percent) were more likely to know that HIV positive people could look and feel well than were either of the two Hispanic groups (58 percent and 59 percent). Unlike earlier studies, Mexican women in the Los Angeles sample were just as knowledgeable as other Hispanic women.

**Misperceptions about HIV transmission.** Both the 1988 national and the 1990 Los Angeles Hispanic women were more likely than non-Hispanic women to hold erroneous beliefs about getting AIDS from living near a hospital (42 percent and 31 percent versus 11 percent); working near someone with the AIDS virus (43 percent and 42 percent versus 20 percent); shaking hands, touching, or kissing (37 percent and 37 percent versus 15 percent); or contact with public toilets (60 percent and 53 percent versus 30 percent). Again, Mexican women in the Los Angeles sample did not differ from other Hispanic women in this group. One difference in the Los Angeles sample was that 49 percent of Central

and South American respondents and only 22 percent of Mexican origin respondents believed it was "very likely" that the AIDS virus could be transmitted through coughing and sneezing.

**Perceived risk of HIV infection.** Twenty percent of Los Angeles women reported that they considered themselves at some risk of currently having the AIDS virus compared with 2 percent of each of the two national samples. Similarly, they considered themselves more likely to be at risk in the future than did the national samples (22 percent compared with 3 and 2 percent). Only respondents who reported a high or medium risk for getting the AIDS virus were questioned about the source of their risk. The Los Angeles sample was more likely to feel that they risked getting AIDS in the future from a blood transfusion (27 percent) or sexual contact (53 percent) with someone who has the AIDS virus than did the other two groups.

**HIV blood testing and blood donation.** Los Angeles women (23 percent) were more likely to have received counseling about taking the HIV test than either of the 1988 national groups (5 percent and 3 percent). Although all women in the Los Angeles survey eventually received counseling as part of the larger study in which they were involved, those reporting HIV counseling in this instance had received it outside and prior to this project. Los Angeles women (34 percent) also were more likely to have had HIV testing than the 1988 national groups (18 percent and 4 percent). A greater percentage of both Hispanic groups had been tested as a required part of another activity (71 percent and 69 percent versus 48 percent).

**Prevention of HIV transmission.** The Los Angeles sample was slightly more likely than either of the national groups to know that the use of condoms is effective in preventing transmission. Both of the Hispanic groups, however, were more likely to believe that diaphragms (54 percent and 41 percent versus 15 percent) and vasectomy (30 percent and 27 percent versus 3 percent) are effective methods and less likely to believe that two monogamous HIV negative people having sex effectively prevents AIDS (76 percent and 78 percent versus 91 percent).

**Reaction to government efforts.** Three questions about attitudes toward government information were compared. There were no major differences between groups in this area. About one-third of all respondents believed the blood supply is safe, and

close to 70 percent believed government information about AIDS prevention and transmission. Also, at least two-thirds of all respondents indicated a willingness to take part in HIV virus testing if requested by the government.

**Additional analyses of the Los Angeles sample.** Responses of the national sample were examined relative to education and age by Dawson and Hardy (1). They reported that, for both Hispanic and non-Hispanic groups, general knowledge of AIDS improved with increasing education and erroneous beliefs about HIV transmission decreased with increasing education. Finally, correct beliefs about AIDS prevention increased with educational level for both national groups. Age was not related to any of these three topic areas in the national samples (1). Level of acculturation was not examined in the national survey, although differences between Mexican and other Hispanic respondents were reported. Mexican respondents were less knowledgeable and held more erroneous beliefs (1).

For the Los Angeles sample, responses were examined relative to age, education, and level of acculturation. Age was categorized in the same manner as for the national sample. Age group was not significantly related to general knowledge, erroneous beliefs, or beliefs about prevention. Education was also categorized in the same way as the national survey reports: less than 12 years, 12 years, and more than 12 years of education. Those with 12 years of education or more scored significantly higher on general knowledge of AIDS ( $F(2,420) = 35.37, P < .05$ ) and had significantly fewer erroneous beliefs ( $F(2,420) = 17.51, P < .05$ ) than those with less schooling. Those with more than 12 years of education had significantly greater knowledge of prevention methods than did those with less education ( $F(2,420) = 7.72, P < .05$ ).

There were also significant differences in knowledge and beliefs by acculturation level. Respondents who were more acculturated had significantly higher knowledge scores ( $t = 5.86, df = 389, P = .0001$ ), significantly fewer erroneous beliefs, ( $t = -2.37, df = 389, P = .018$ ) and significantly greater knowledge of preventive measures ( $t = -2.92, df = 389, P = .004$ ) than those who were less acculturated.

## Discussion

Several characteristics of the design and analysis limit the use of statistical comparisons. Sample

selection differed (random versus convenience), geographic setting, possible ethnicity of Hispanics (the Los Angeles sample was about half Mexican and half Central and South American), age (Los Angeles respondents were younger), and education (Los Angeles subjects had less education). Comparisons between the two national cohorts and the Los Angeles cohort were made using multiple tests of association, thereby increasing the chance of spuriously inflating alpha. Acknowledging these limitations, it can still be said that trends in the data demonstrated a continuing lack of knowledge among Hispanics despite a 2-year public health information campaign. These findings provide some feedback on the effectiveness of public health, local community, and media efforts to educate the Hispanic community about AIDS.

AIDS education efforts should be focused on several areas based on the data from these surveys. General knowledge of AIDS has improved, but many concerns remain. Although a minority, an alarming number believed that teenagers could not get AIDS, that AIDS is treatable, and a vaccine is available. These results are similar to others reported for Los Angeles Hispanic samples (8,9). Targeted education efforts in Los Angeles should emphasize that there is no vaccine nor effective treatment or cure for AIDS and that teenagers are as susceptible as adults.

Several investigators have reported that Hispanics are more likely to hold erroneous beliefs about casual transmission of HIV than are non-Hispanics (4-8,10). These beliefs persist and should become a focus of education programs in a continuing effort to dispel unnecessary fears. In addition, misperceptions may vary among the different Hispanic groups. In the Los Angeles sample, Central and South Americans were much more likely to believe in airborne transmission than were Mexicans.

Sexual practices and control over sexual practices among Los Angeles women are also issues for focused education and prevention programs. In this study, Los Angeles women perceived their likelihood of having or getting the AIDS virus to be considerably higher than women in the national sample. They believed the source of their risk to be blood transfusions or sexual contact. Hispanic women need to be assured of the safety of the blood supply, and the confusion about blood transfusions and donations should be clarified.

The women's sexual concerns, however, might be related to reported common cultural differences in sexual practices between Hispanic men and women (15-17). According to these reports women do not

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have any degree of control over sexual practices, and husbands or partners are not expected to be monogamous nor exclusively homosexual or heterosexual. Additionally, condoms are often associated with prostitution and venereal disease. Given these circumstances, it is not surprising that Hispanic women fear HIV transmission through sexual contact despite their increased knowledge of transmission and condom use. Prevention programs must emphasize interventions which assist women in modifying their sexual practices within a sociocultural context. According to experts in this area, these interventions must include both partners and the family in AIDS prevention (15,17).

Hispanic respondents were more likely to have had an HIV antibody test as a requirement, perhaps as a condition of immigration. However, about one-third of Hispanic subjects had the test voluntarily. An important positive response to the public AIDS awareness and education campaign has been the increasing interest of Hispanics in HIV antibody testing and counseling. Hispanic respondents are receptive to having the blood test and to receiving HIV education and counseling. Community AIDS prevention programs can optimize this response by providing extensive low cost or free HIV antibody testing and counseling.

Finally, focused education efforts have to take into account varying levels of education and acculturation as well as ethnicity in the Hispanic community. Persons with little education and low levels of acculturation are less knowledgeable, have more erroneous beliefs, and therefore must be approached differently. Finally the ethnicity of Hispanics differs considerably in various parts of the United States (18). The risk of AIDS differs with ethnicity as does the major mode of transmission. Education programs that consider all Hispanics as a single group may be ineffective, irrelevant, and insulting. To be effective, targeted HIV educational programs must overcome the common tendency to address Hispanics as a single ethnic group.

1. Dawson, D. A., and Hardy, A. M.: AIDS knowledge and attitudes of Hispanic Americans: United States, 1988. Provisional data from the National Health Interview Survey. No. 166, Apr. 11, 1989.
2. Biddlecom, M. A., and Hardy, A. M.: AIDS knowledge and attitudes of Hispanic Americans: United States, 1990. Provisional data from the National Health Interview Survey. No. 207, Oct. 17, 1991.
3. Santini, K. A., and Washington, L.: AIDS knowledge and attitudes in the Black and Hispanic populations. Public Health Rep 104: 403-404, July-August 1989.
4. Friedman, S. R., et al.: The AIDS epidemic among Blacks and Hispanics. Milbank Q 65 (supp. 2): 455-499 (1987).
5. Marin, B. V., and Marin, G.: Effects of acculturation on knowledge of AIDS and HIV among Hispanics. Hispanic Journal of Behavioral Sciences 12: 110-121, May 1990.
6. Hu, D. J., and Fleming, D.: Communicating AIDS information to Hispanics: the importance of language and media preference. Am J Prev Med 5: 196-200 (1989).
7. DiClemente, R. J., et al.: Minorities and AIDS: knowledge, attitudes, and misconceptions among Black and Latino adolescents. Am J Public Health 78: 55-57, January 1988.
8. Flaskerud, J. H., and Calvillo, E.: Beliefs about AIDS, health and illness among low income Latina women. Res Nurs Health 14: 431-438 (1991).
9. Flaskerud, J. H., and Nyamathi, A.: Effects of an AIDS education program on knowledge, attitudes and practices

- of low income Black and Latina women. *J Community Health* 15: 343-355 (1990).
10. Marin, G.: AIDS prevention among Hispanics: needs, risk behaviors, and cultural values. *Public Health Rep* 104: 411-415, September-October 1989.
11. DiClemente, R. J., et al.: The association of gender, ethnicity, and length of residence in the Bay area to adolescents' knowledge and attitudes about acquired immune deficiency syndrome. *J Appl Soc Psychol* 17: 216-230 (1987).
12. Marin, G., and Marin, B. V.: Perceived credibility of channels and sources of AIDS information among Hispanics. *AIDS Educ Prev* 2: 156-163 (1990).
13. Porter, J., and Bonilla, L.: The Health Belief Model as a predictor of HIV-testing behavior among Latinos in the USA. Abstract No. M.D. 4006, *Int Conf AIDS* 7: 391, June 16-21, 1991.
14. Marin, G., et. al.: Development of a short acculturation scale for Hispanics. *Hispanic Journal of Behavioral Sciences* 9: 183-205 (1987).
15. de la Vega, E.: Homosexuality and bisexuality among Latino men. *Focus* 4: 3, June 1989.
16. Mays, V. M., and Cochran, S. D.: Issues in the perception of AIDS risk and risk reduction activities by black and Hispanic/Latina women. *Am Psychol* 43: 949-956, November 1988.
17. Carrier, J. M.: Sexual behavior and spread of AIDS in Mexico. *Med Anthropol* 10: 129-142 (1989).
18. Selik, R. M., et. al.: Birthplace and the risk of AIDS among Hispanics in the United States. *Am J Public Health* 79: 836-839, July 1989.

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